AMENDMENTS TO THE SPECIFICATION:

1. Please add CROSS REFERENCE TO RELATED APPLICATIONS before [**Field of the Invention**] of Page 1 of the present application as follows:

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a U.S. National Phase Application of International Application PCT Application No. PCT/KR2004/00007 filed on January 5, 2004, which claims the benefit of priority from Korean Patent Application No. 10-2003-0003388 filed on January 17, 2003. The disclosures of International Application PCT Application No. PCT/KR2004/00007 and Korean Patent Application No. 10-2003-0003388 are incorporated herein by reference.

2. Please replace Lines 6-8 of Page 1 of the present application with the following paragraph:

The present invention relates to a method for transmitting and downloading streaming data, more particularly to a method for transmitting and downloading streaming data through a plurality of distributed nodes.

3. Please replace Lines 12-15 of Page 1 of the present application with the following paragraph:

Conventionally, most ~~contents~~ content data provided through the Internet were small size data such as document or picture. However, as data transmission technology and devices develop, multimedia contents are also widely provided. The multimedia contents are transmitted to user clients through the streaming method.

4. Please replace Lines 18-23 of Page 1 of the present application with the following paragraph:

The streaming data should be transmitted in real time. However, as the streaming data were transmitted from one server to user clients conventionally, transmission delay has occurred

frequently when load of the server becomes higher or connection state is <u>unstable</u> ~~in stable~~. Because the streaming data should be played as soon as they are downloaded, transmission delay affects QoS (Quality of Service) greatly unlike general file download.

5. Please replace Lines 16-18 of Page 2 of the present application with the following paragraph:

Another object of the present invention is to provide a method for downloading streaming data stably in <u>the</u> file transmission system with multiple servers and a communication agent program installed in user clients.

6. Please replace Line 22 of Page 2 - Line 6 of Page 3 of the present application with the following paragraph:

In order to achieve above-mentioned objects, according to a preferred embodiment of the present invention, there is provided a method for downloading streaming data comprising the steps of: (a) establishing connections with a plurality of nodes; (b) sending a request for sub blocks of streaming data to the plurality of nodes where connection is established to download the sub blocks; (c) monitoring download state of the established connections; and (d) redistributing sub blocks to be downloaded from some of the nodes where connection is established according to the monitoring result; wherein, the step (b) to step (d) are repeated for downloading sub blocks included in <u>the</u> next block when all sub blocks included in a block are downloaded

7. Please replace Lines 14-16 of Page 3 of the present application with the following paragraph:

The connection state valuation index may be calculated using information selected from <u>the</u> group consisting of round-trip time with each of the nodes and average download speed from each of the nodes.

8. Please replace Line 25 of Page 3 - Line 9 of Page 4 of the present application with the following paragraph:

The step for redistributing sub blocks between a connection where sub block download is completed and a connection of which the download rate is the lowest may comprise the steps of: determining download speed of the connection where the sub block download is completed and the connection of which the download rate is the lowest; determining the number of remaining sub blocks to download in the connection of which the download rate is the lowest; determining if redistribution of sub blocks is necessary; redistributing the remaining sub blocks between the connection where sub block download is completed and the connection of which the download rate is the lowest according to rate of the download speed if sub block redistribution is necessary.

9. Please replace Lines 2-16 of Page 5 of the present application with the following paragraph:

According to another embodiment of the present invention, there is provided a communication agent program installed in user clients downloading streaming data from the system including a plurality of ~~contents~~ content servers and at least a connection control server, comprising: a data request module for sending a request for transmission of data to the connection control server; a node information manager module for receiving and storing list of ~~contents~~ content servers from which the requested data are to be downloaded; a connection control module for establishing connections with a plurality of ~~contents~~ content servers included in the contents server list, and requesting sub blocks of streaming data to download from the ~~contents~~ content servers where connection is established, and redistributing sub blocks to download in some of the ~~contents~~ content servers where connection is established by monitoring download state while downloading sub blocks from connected ~~contents~~ content servers; and a sub block manager module for determining if all sub blocks included in a block are downloaded and requesting sub blocks included in a next block to download sub blocks of the next block when all sub blocks included in a block are downloaded.

10. Please replace Lines 7-21 of Page 6 of the present application with the following paragraph:

According to another embodiment of the present invention, there is provided a connection control server connected with a plurality of user clients and a plurality of ~~contents~~ content servers through network for controlling connection between the user clients and the ~~contents~~ content servers in order for a user client to download streaming data by connecting at least two ~~contents~~ content servers, comprising: a server state determining module for receiving state information from the connected plurality of ~~contents~~ content servers and determining state of each of the ~~contents~~ content servers; a server list providing module for providing list information of servers to transmit streaming data of requested contents when receiving contents request information from a user client; wherein a communication agent program is installed in the user clients, the communication agent program controls the user clients to establish connections with at least two ~~contents~~ content servers using the server list information, and determine sub blocks of streaming data to download from each of the connected ~~contents~~ content servers to request sub blocks, and to redistribute sub blocks to download by monitoring download state of sub blocks from each of the connected nodes.

11. Please replace Lines 10-16 of Page 9 of the present application with the following paragraph:

Unlike general file download, the streaming data should be played while being downloaded. Therefore, general file download method through multiple servers cannot be applied to the streaming data download because conventionally whole file data are divided into N segments and each of the segments is downloaded through multiple paths. According to the conventional file download method using multiple paths, a downloaded file cannot be played until whole file data are downloaded while streaming data should be played as soon as they are downloaded.

12. Please replace Lines 19-21 of Page 12 of the present application with the following paragraph:

Referring to FIG. 3, the streaming data transmission system according to an embodiment of the present invention may comprise a plurality of ~~contents~~ content servers 300, 302, 304, 306, 308, a connection control server 310 and a user client 312.

13. Please replace Lines 3-5 of Page 13 of the present application with the following paragraph:

The user client 312 receives server list information from the connection control server 310 and establishes connection with the ~~contents~~ content servers in the list to download streaming data through multiple paths.

14. Please replace Lines 12-17 of Page 13 of the present application with the following paragraph:

Referring to FIG. 4, the streaming data transmission system according to a preferred embodiment of the present invention may comprise a connection control server 410, a plurality of ~~contents~~ content servers 400, 402, 404, 406, 408 and a plurality of clients 412, 414, 416, 418, 420, 422, 424, 426, 428. Although the plurality of ~~contents~~ content servers are illustrated in FIG. 4, the number of ~~contents~~ content server can be one unlike FIG. 4.

15. Please replace Line 25 of Page 13 - Line 3 of Page 14 of the present application with the following paragraph:

The user client that requested contents establishes connection with contents servers or clients using the list information that is provided by the connection control server 410 and sends a request for different sub blocks to the clients or ~~contents~~ content servers where connection is established to download streaming data.

16. Please replace Lines 18-21 of Page 14 of the present application with the following paragraph:

Referring to FIG. 6, a user client receives node list information from the connection control server S600. In system of FIG. 2, nodes are user clients that stores contents. In system of FIG. 3, nodes are plurality of ~~contents~~ content servers, and in system of FIG. 4, nodes can include both of user clients and ~~contents~~ content server.

17. Please replace Lines 8-15 of Page 18 of the present application with the following paragraph:

Referring to FIG. 8, the connection control server receives state information from each of the ~~contents~~ content servers S800. According to a preferred embodiment of the present invention, the state information may be one or combination selected from group comprising bandwidth information, CPU usage rate information, memory usage rate information, the number of users connected, and file I/O information. It would be obvious to those skilled in the art that other information besides above-described information can also be used as the state information of server.

18. Please replace Line 18 of Page 18 - Line 7 of Page 19 of the present application with the following paragraphs:

The connection control server that received contents request information provides address information of servers with good state (in other words, node list information) using the state information in S800 and sub block distribution information (information on which sub blocks to be downloaded from each of the ~~contents~~ content servers) to the client that requested contents S804.

In FIG. 8, the case that sub block distribution information is transmitted to the user client from the connection control server, however, it would be obvious to those skilled in the art that the client itself can distribute sub blocks to download by checking the connection state after connecting the ~~contents~~ content servers.

According to another embodiment of the present invention, in initial state of data download, the connection control server provides sub block distribution information. Then, if download of a block data is completed, the user client itself distributes sub blocks to download from each of the ~~contents~~ content servers in the download of the next sub block because ~~contents~~ content server can determine download speed with each of the ~~contents~~ content servers.

19. Please replace Lines 10-23 of Page 30 of the present application with the following paragraphs:

The server state determining module determines state information of ~~contents~~ content servers which are managed by the connection control server. As described above, the server state determining module 1400 uses information including bandwidth, CPU usage rate, memory usage rate, the number of connected users, and file I/O, etc. in order to determine state of each of the ~~contents~~ content servers.

The server list providing module 1404 provides list information of ~~contents~~ content servers which the user client requesting contents should connect to. The server list providing module provides list of servers with good state using the determination result of the server state determining module.

The sub block distribution module 1402 provides information of the number of sub blocks to be downloaded from each of the ~~contents~~ content servers using the state information of the ~~contents~~ content servers to the user client which requested contents.

Information of ~~contents~~ content servers which the connection control server manages is stored in the ~~contents~~ content server database 1410.